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Angeles and Orange counties. The wonderful diversity of the flora of California compels separate manuals for different regions of the state, if they are to be kept within convenient compass. No one of these regions seems to have been in greater need of such a manual than the one selected by the author. The usefulness of such a book is to be determined in the using, but the page is clear and attractive, the keys are well organized for convenience, and the specialists called on for assistance are abundantly able to give it. The book should justify fully the evident pains given to its preparation.—J. M. C.

A KEY to the genera of the native and cultivated woody plants of New York state, as they appear in their winter condition, has been issued recently from Cornell University.[10] One hundred and eighty-two genera are considered, including such plants as Epigaea. The distinguishing characters of the deciduous genera are chiefly those of buds, twigs, and leaf scars. The key will be especially helpful in determining the cultivated trees and shrubs of the city parks. The authors intend later to present keys to the species of each genus.—C. D. HOWE.

A CATALOGUE of the bryophytes and pteridophytes of Pennsylvania, prepared by the late Professor Thomas C. Porter[11] and edited by Dr. John K. Small, has just been published. The liverworts number 91 species and varieties, mosses 366, ferns 56, and "fern allies" 29. The catalogue is a bare list, with habitats and stations, but it is especially interesting in that Professor Porter was assisted in its preparation by such men as Thomas P. James, Coe F. Austin, A. P. Garber, and D. A. Burnett.—J. M. C.

THE THIRD VOLUME of Halacsy's[12] *Flora of Greece* begins with Lentibulariaceae, and the first fascicle closes in the midst of Cyperaceae.—J. M. C.

NOTES FOR STUDENTS.

J. H. SCHAFFNER[13] has published a partial list of Ohio plants with extra-floral nectaries and other glands, and has also referred them to eleven types. —J. M. C.

PORSCH finds[14] the study of the finer details as well as the general structure of the stomata of Casuarina confirm the conclusions of Treub and others as to the phylogeny of this genus; wherefore he concludes that such data constitute a valuable adjunct to the usual phylogenetic criteria.—C. R. B.

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[10] WIEGAND, K. M. and FOXWORTHY, F. W., A key to the genera of woody plants in winter, including those with hardy representatives found growing wild or in cultivation within New York state. Ithaca, N.Y.: Cornell University. 1904. 25 cents.

[11] PORTER, THOMAS C., Catalogue of the Bryophyta and Pteridophyta found in Pennsylvania. 8vo. pp. 66. Boston: Ginn & Company. 1904. $1.10.

[12] HALACSY, E. DE, Conspectus Florae Graecae. Vol. III. fasc. I. pp. 1–320. Leipzig: Wilhelm Engelmann. 1904. *M* 7.50.

[13] SCHAFFNER, J. H., Ohio plants with extra-floral nectaries and other glands. Ohio Nat. 4: 103–106. 1904.

[14] PORSCH, OTTO, Der Spaltöffnungsapparat von Casuarina und seine phyletische Bedeutung. Oesterr. Bot. Zeits. **54**: 7– ; 41–51. *pl. 3*. 1904.

W. C. COKER[15] has discovered that no sterile prothallial cell is cut off in the germination of the microspores of Cupressus (4 spp.), *Taxus baccata* and four vars., Juniperus (2 spp.), Chamaecyparis (5 spp.), Callitris (1 sp.), *Cryptomeria japonica*, and *Thuja orientalis*. In Thuja the four megaspores were not found in the usual linear series, but in the regular tetrad arrangement.—J. M. C.

MISS MARGARET BENSON[16] has suggested a possible origin of the angiosperm flower from the "telescoping" of such an "inflorescence" as that of Gnetum, which also suggests angiosperms in its free sporophylls, nucellar structure, embryo sac development, and vegetative characters. It may be that the possible origin of angiosperms from Gnetum-like forms has been recently too lightly considered.—J. M. C.

TWO RECENT PAPERS by Küster[17] recount the author's experiments on regeneration from the hypocotyl of seedlings of *Anagallis coerulea* and *Linaria Cymbalaria*. When the epicotyl was removed, shoots sprang from the hypocotyl, and showed a marked anisophylly. Detached cotyledons of *Cucumis sativa* produced both roots and shoots in a small proportion of cases. It is shown that anisophylly is not due to geotropism.—M. A. CHRYSLER.

W. B. HEMSLEY[18] has published some curious data in reference to Davidia, an endemic and monotypic Chinese genus usually placed in the Cornaceae. The seeds germinate while retained in the fruit, which has dehisced enough to expose them; hence from one to ten seedlings may be emerging simultaneously from a single fruit. Buds were also observed in the axils of the cotyledons.—J. M. C.

F. V. COVILLE[19] has given an account of the preparation of "wokas" by the Klamath Indians, once a staple farinaceous food of the tribe, and obtained from *Nymphaea* (*Nuphar*) *polysepala*, the great yellow water lily. The Klamath reservation is in eastern Oregon, and Klamath Marsh is estimated to contain about 10,000 acres of a solid growth of "wokas." The plant is so vigorous that it completely excludes other characteristic and conspicuous marsh plants, such as the tule and cat-tail.—J. M. C.

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[15] COKER, W. C., On the spores of certain Coniferae. Science N. S. **19**:424. 1904.

[16] BENSON, MARGARET, The origin of flowering plants. New Phytologist **3**: 49–51. 1904.

[17] KÜSTER, E., Beobachtungen über Regenerationserscheinungen an Pflanzen. Beihefte Bot. Centralbl. **14**: 316–326. 1903; **15**: 421–426. 1904.

[18] HEMSLEY, W. BOTTING, On the germination of the seeds of *Davidia involucrata* Baill. Jour. Linn. Soc. London **35**: 556–559. *pl. 19*. 1903.

[19] COVILLE, F. V., Wokas, a primitive food of the Klamath Indians. Rep. U. S. National Museum 1902: 725–739. *pl. 13*.

RALPH E. SMITH[20] has issued a preliminary report of his investigation of the asparagus rust, a disease which is seriously threatening a great Californian industry. A complete account will be published later, but the interests involved demand such current information as is available. The account is clear and to the point, and the practical suggestions are of great value, but the wretched half-tone illustrations are almost like so much waste space in so far as they are intended to show anything distinctly.—J. M. C.

MARIANI, in a study of the influence of humidity on the development of stomata in the cotyledons,[21] seems to have obtained no very decisive results. He found that in light humidity tends to increase the area of the cotyledonar limb, but to diminish the number of stomata and (rather more) the number of epidermal cells per unit of surface, which is as much as to say that it favors the formation of stomata, but does not augment their number. In darkness the reverse effect appears, but even less distinctly.—C. R. B.

UNTIL VERY recently there has been no evidence that the Carboniferous ferns followed the same course of development as their recent allies. Within a few months a fossil sporangium, collected by Mr. J. Lomax, has been sectioned by D. H. Scott[22] and found to contain germinating spores of a quite modern type. The rhizoids in several specimens are perfectly clear, as are the cell divisions of the young prothalli. The sporangial wall in its multiseriate structure resembles those of the eusporangiate ferns.—FLORENCE LYON.

BRIOSI AND FARNETI[23] have investigated the lemon scab found in Italy, which has recently appeared in Sicily, where the natives call it *ruggine bianca*. They have identified two diseases due to the presence of a polymorphic fungus known variously as Rhynchodiplodia, Cladosporium, Hormodendron, Ovularia, Haplaria, Pseudofumago, and Pseudosaccharomyces. *Cladosporium Citri* Briosi & Farneti is the form that produces the lemon scab. The investigators produced the disease by cultures and suggest a cure.—L. MONTEMARTINI.

[20] SMITH, RALPH E., Report on asparagus rust investigation. Agricultural Experiment Station, University of California, Circular no 9, January 4, 1904.

[21] MARIANI, GINDITTA, Intorno all, influenza dell' umidita sulla formazione e sullo sviluppo degli stomi nei cotyledoni. Atti Istituto Bot. Univ. Pavia II. **8**: 67–98. 1904.

[22] SCOTT, D. H., Germinating spores in a fossil fern sporangium. New Phytologist **3**: 18–23. 1904.

[23] BRIOSI, G., and FARNETI, R., Intorno alla ruggine bianca dei limoni, grave malattia manifestatasi in Sicilia. Atti Istituto Bot. Pavia **10**:—. 1904.

SCHAFFNER,[24] in continuing his studies among the lower monocotyledons, concludes that the placing of the Nymphaeaceae near the Helobiae is justified. He holds that the embryonal and anatomical characters, as well as the more superficial features of the group, would suggest the Helobiae as near relatives. He opposes the supposition that all so-called cotyledons are homologous, and suggests that instead of having only two general types in angiosperms there are several types which approach each other at various points in widely separated orders.— R. B. WYLIE.

BACHMANN[25] has attempted to summarize our knowledge of phytoplankton, covering the whole subject, from definitions of plankton and descriptions of methods of collection to the distribution of the phytoplankton and its relation to other organisms. This is followed by a bibliography of about ten pages, and hence it cannot be very complete. The paper adds nothing to what has already been published, but gives a very good résumé of what has been done, and perhaps as good a statement of the present state of knowledge as could be expected in a brief article.—C. D. MARSH.

SEVERAL INTERESTING OBSERVATIONS regarding plasmolytic phenomena in the blue-green algae are made by Brand.[26] Among the most striking are these. Thalli of Phormidium, etc., when strongly plasmolyzed by a salt solution and then placed in pure glycerin, are able to absorb this substance much as they might water, and thus return to their normal form. They live thus, filled with glycerin, for a number of hours. Furthermore, if cells so filled with glycerin are placed in water they stretch to beyond their normal size and often burst from the high internal pressure.— B. E. LIVINGSTON.

FROM HIS STUDIES of the foliar bundles of young plants of *Cycas revoluta* and *Zamia integrifolia*, Enrico[27] concludes that, though most of the centrifugal xylem is of secondary origin, a small portion is primary and is derived from the centripetal wood. This implies a near relationship to the distinctly mesarch structure of the vascular strands of ferns. The author considers that the changes seen in a foliar bundle in its ontogeny and in its course from the leaf tip to cortex of the stem represent the phylogenetic development of the bundle of the higher plants. The phloem shows two maxima of development in its young stages; this is interpreted as an ancestral character.— M. A. CHRYSLER.

[24] SCHAFFNER, J. H., Some morphological peculiarities of the Nymphaeaceae and Helobiae. Ohio Naturalist 4: 83–92. *pls. 5–7.* 1904.

[25] BACHMANN, H., Das Phytoplankton des Süsswassers. Bot. Zeit. **62**^{2}: 81–100. 1904.

[26] BRAND, F., Ueber das osmotische Verhalten der Cyanophyceenzelle. Ber. Deutsch. Bot. Gesell, **21**: 302–309. 1903.

[27] ENRICO, C., V. Contribuzione alla conoscenza della morphologia e dello sviluppo del fascio vascolare delle foglie delle Cicadacee. Annales di Bot. **1**: 109–121. *pls.* 8–9. 1903.

IN A NEW Contribution from the Gray Herbarium, B. L. Robinson[28] publishes under the following titles: "Diagnoses and synonymy of some Mexican and Central American Eupatoriums," nine new species being described; "Synopsis of the Mikanias of Costa Rica," eleven species being recognized, three of which are new; "Notes on the genus Mimosa in Mexico and Central America," six new species being described; "Notes on some Polygonums of western North America," three new species of §Avicularia being described and the diamorphism of *P. longistylum* Small noted; "New spermatophytes of Mexico and Central America," new species being described in Hechtia, Cerastium, Parnassia, Penstemon, Piptothrix, Brickellia (2), Verbesina (2), and Liabum.—J. M. C.

J. C. ARTHUR[29] has pointed out the taxonomic importance of the spermogonium, the common conception that it is an accompaniment of the aecidium, or other spore-forms, being incorrect and misleading. After an interesting discussion of the varying life-cycles of the rusts, the statement is made that a record of the presence of the spermogonium, and the spore-generation with which it is associated, gives valuable information regarding the probable length of the cycle. If spermogonia and uredospores are found arising from the same mycelium, aecidia do not occur in the cycle; and if spermogonia and teleutospores are found arising from the same mycelium, there are neither uredo nor aecidia in the cycle. It is also stated that position, form, color, and size of the spermogonium are characters worth recording for taxonomic purposes.—J. M. C.

GOEBEL'S STUDIES on *Regeneration in Utricularia*[30] show that in the aquatic members of this genus production of adventitious buds occurs in the "leaf" forks and on the stalk of the bladders. In *U. exalata* budding occurs on leaves attached to the plant only when all vegetative points on the shoot axis are removed; hence the author emphasizes the importance of the principle of correlation. Localization of the regenerating region is ascribed not to the embryonic condition of the tissues in the leaf forks, but to the predisposition to building at places where the conducting system branches. In terrestrial species, if the tip of a leaf is cut off, buds appear on the cut surface of the attached part, but the ability to regenerate decreases rapidly as the base of the leaf is approached. Leaves of Pinguicula removed from a plant show regeneration of a more usual type, in that the adventitious buds are produced on the cut surface at base of the leaf.—M. A. CHRYSLER.

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[28] ROBINSON, B. L., Contributions from the Gray Herbarium of Harvard University. New Series. no. XXVII. Proc. Boston Soc. Nat. Hist. **31**:247–271. 1904.

[29] ARTHUR, J. C., Taxonomic importance of the spermogonium. Bull. Torr. Bot. Club **31**: 113–124. 1904.

[30] GOEBEL, J., Morphologische und biologische Bermerkungen. 15. Regeneration der Utricularia. Flora **93**:98–126. *figs. 17*. 1904.

STEINBRINCK proposes[31] an explanation of the osmotic movement of water, which has the merit of substituting definite dynamics for the vague or ambiguous ideas of previous writers. Briefly stated he conceives the internal pressure of water to be reduced through the wedging apart of its molecules by those of the solute; the excess pressure of the pure solvent then determines its movement toward the region of least (internal) water pressure, *i. e.*, to the points where the solution is most concentrated. As the internal pressure of water has been estimated at *ca.* 10,000 atmospheres (5,000 by Tumlirz), the force concerned is entirely adequate to account for any observed movements. The osmotic cell is thus conceived as a mechanism operating by differences in internal water pressure, as the pump operates by differences in external air pressure. The explanation has no immediate relation to the kinetic theory, and Steinbrinck speaks of osmotic suction, not osmotic pressure. This conception he expounds by clear illustrations from the capillary tube and the siphon, both operating on the same principle, though the inequalities in pressure are differently produced. He also applies the idea to the problem of the ascent of sap, evidently holding the cohesion theory as the most likely.—C. R. B.

POLLACCI, who believes himself to have established the presence of formic aldehyde in green leaves (though the available tests are not beyond suspicion), now holds that he has materially strengthened his theory of photosynthesis by finding free hydrogen emitted from leaves.[32] This, he thinks, is set free in its nascent condition, in which it is a powerful reducing agent. The action normally proceeds according to the formulas: (1) $2CO_2 + 2H_2O = 2CH_2O_3$. (2) $2CH_2O_3 + 2H_2 + \text{light} = CH_2O + CH_4 + H_2O + 2O_2$. On the first step, the formation of carbonic acid, he lays considerable stress as an idea proposed by him. But in 1893[33] and repeatedly since I have insisted upon this as the first and fundamental process in photosynthesis. The second formula exhibits the course of events when adequate light and CO_2 are present. But when an excess of CO_2 is available this formula becomes: (3) $2CH_2O_3 + 3H_2 + \text{light} = CH_2O + H_2O + 2O_2 + CH_4 + H_2$. This shows Pollacci's main result in the present memoir. But he also suggests an important rôle for nascent H in the formation of many common plant products. He will continue his researches, especially to determine more accurately the compound which some of the H forms with C (appearing in the formula as "CH_4," but with probability only) and the conditions of light, temperature, electric charge, phase of development, etc., which influence the emission of free H.—C. R. B.

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[31] STEINBRINCK, C., Ueber dynamische Wirkungen innerer Spannungsdifferenzen von Flüssigkeiten und ihre Beziehung zum Saftsteigproblem der Bäume. Flora **93**: 127–154. 1904.

[32] POLLACCI, GINO, Intorno all' assimilazione chlorofillina. Memoria II. Atti Istituto Bot. Univ. Pavia II. **8**: 1–66. *pls. 3.* 1904.

[33] BARNES, C. R., On the food of green plants. BOT. GAZ. **18**: 405. 1893.

MATTEI discusses[34] the structure and ecology of a gall produced on *Quercus leptobalanus* Gussone, by *Cynips Mayri* Kieffel. The galls in question are of a brilliant carmine color and give off the odor of hyacinths. Their surfaces are covered with a viscid secretion, in which are usually to be found the more or less dissolved remains of small myriapods, arachnids, microlepidoptera, minute coleoptera and diptera, with a few other forms. Amid these animal remains are found two kinds of trichomes, one set composed of from three to six cells of unequal size, the largest at the distal extremity, all with reddish purple protoplasm, and resembling the secreting hairs of various carnivorous plants. The other set of trichomes consists of slender quadrifid hairs, radiating in the form of a cross and extending outward toward the portion of the viscid coating (the outer part) where there is the most animal matter. Professor Mattei suggests that the function of the stouter, reddish trichomes is to secrete a fluid which serves both to capture and to digest insects, and that the other trichomes are for absorption of the digested products. Whether the nutritive material obtained by the gall from captured insects, etc. is utilized for the growth of the gall in general, for the nourishment of the Cynips larva in particular, or even, in part, for the use of the oak host Professor Mattei leaves for future investigation and discussion. The subject of possible carnivorous habits in galls deserves to be fully investigated and promises to be full of interest.—JOSEPH Y. BERGEN.

BY THE USE of material infiltrated, imbedded, and cut in serial sections, Erwin Baur[35] has been enabled to trace the origin of the ascogenous hyphae in a number of lichen genera not heretofore studied accurately in this respect. From these researches it appears that the ascogenous hyphae have their origin in a well-developed carpogonium in the case of Parmelia, Anaptychia, Endocarpon, Gyrophora, Lecanora, and Cladonia. The carpogonium in these genera resembles that observed in the genus Collema, and Baur infers that it is sexual in its origin. Only in the genera Anaptychia and Endocarpon, however, was a fusion between the spermatia and the trichogyne observed, and even in these cases the result of the "sexual act" could not be further followed. In Solorina, as in Peltigera, Peltidea, and Nephromium, the origin of the carpogonium is stated to be probably apogamous, and this fact is correlated with the absence of spermogonia in these genera.

In view of the difficulty experienced by other observers in securing thorough infiltration of the lichen thallus, Baur's method may be summarized as follows: Damp material is fixed in a saturated solution of sublimate in 5% acetic acid. After thorough washing in water and alcoholic iodine, the specimens are brought gradually into absolute alcohol. They are then slowly infiltrated (8 days) with celloidin, and the blocks hardened in 70% alcohol (one day), and in a mixture of one part 70% alcohol and ten parts glycerin (at least two days). Sections are cut 20–25μ in thickness, stained with "Hämalaun" and mounted in balsam.—W. C. STURGIS.

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[34] MATTEI, G. E., Osservazioni biologiche intorno ad una galla. Bull. Orto Bot. Naples **1**:—(fasc. 4). *pl. 1.* 1903.

[35] BAUR, E., Untersuchungen über die Entwickelungsgeschichte der Flechtenapothecien, I. Bot Zeit. **62**^{1}: 21–44. *pls. 1–2.* 1904.

DURING THE LAST four years contributions to our knowledge of gymnosperms have accumulated remarkably. In 1901 the reviewer had occasion to bring together the literature of the group in his preparation of the *Morphology of gymnosperms* (Morphology of spermatophytes, part I), but the record of that volume is very scanty in comparison with the material now available. This focusing of attention has not been along morphological lines alone, but has included the work of anatomists and paleobotonists as well. The initial part of a series of papers dealing with the comparative anatomy and phylogeny of the Coniferales by E. C. Jeffrey,[36] has just made its appearance, and promises to be of great service in connection with the phylogeny of a group whose relationships are very obscure. The genus Sequoia was chosen for the first memoir both because it is the sole survivor of a group once extensively displayed, and also because of its possible transition characters. One of the recognized peculiarities of the genus is the absence of resin ducts, but they have now been found in *S. gigantea* in all parts of the ovulate shoot, in the first annual ring of vigorous branches of adult trees, and in the leaf traces of very vigorous leaves of adult trees. In *S. sempervirens* resin ducts are entirely absent from these regions as well as all others; but in both species resin ducts appear in tangential rows in the wood of root and shoot as a result of injury to the tissues. The conclusion is reached that these resin ducts are an ancestral feature of Sequoia, and point strongly to the derivation of the genus from an abietineous stock, a stock which may have been ancestral to the living genera of the Abietineae as well. Morphologists have regarded the Abietineae as a relatively modern group of Coniferales, with Pinus as probably the most modern genus; but now the evidence of paleobotany and of anatomy is against this view, and morphologists are called upon to change their conceptions. The evidence is becoming increasingly clear that purely morphological systems of phylogeny are extremely uncertain.—J. M. C.

ITEMS OF TAXONOMIC INTEREST are as follows: M. L. FERNALD (Rhodora 6:34–41. 1904), in presenting a list of New England Juncaceae, has established two new species and a variety, and has discussed *J. bufonius* and its representatives in America.—OAKES AMES (*idem* 27–31. *pl. 51*) has described a new Spiranthes of rather extensive range in the Atlantic region, often confused with *S. praecox* Watson of the southern states; and has also

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[36] JEFFREY, EDWARD C., The comparative anatomy and phylogeny of the Coniferales. Parl I.—The genus Sequoia. Mem. Boston Soc. Nat. Hist. 5:441–459. *pls. 68–71*. 1903.

(p. 44) substituted the name *S. Grayi* for *S. simplex* of Gray's *Manual* (5th ed.), the latter name being preoccupied by a West Indian species.— A. A. HELLER (Muhlenbergia **1**: 47–62. 1904) has published as new genera *Eburophyton* (*Cephalanthera oregana* Reich.) and *Polemoniella* (*Polemonium micranthum* Benth.), and new species of Sisyrinchium, Ranunculus, Erysimum (2). Rosa, Lathyrus, Trifolium, Gilia, Heliotropium, Orthocarpus, Valeriana, and Achillea.— E. L. GREENE (Ottawa Nat. **17**: 201–203. 1904) has described three new Canadian species of Antennaria.— R. CHODAT (Bull. Herb. Boiss. II. **4**: 285. 1904) has described a new genus (*Hassleropsis*) of Scrophulariaceae from Paraguay.— B. L. ROBINSON (Rhodora **6**: 50–53. 1904) has shown that two common species of Anychia have been confused, and that the *A. dichotoma* of Gray's *Manual* is *A. polygonoides* Raf., and that *A. capillacea* of the same book is *A. dichotoma* Mx.— In Ann. Mycologici for January (1904) the following new genera appear: *Oncopodium* Sacc. (Deuteromycetae), *Klastopsora* Dietel (Melampsoraceae), *Sirozythia* v. Höhnel (Nectrioideaceae), and *Conioscypha* v. Höhnel (Dematicae).— In the first part of his *Flora Manshuriae* (Acta. Hort. Petrop. **22**: 1–452. 1903), V. KOMAROV presents the Archichlamydeae through Saxifragaceae, describing only three new species (Aristolochia, Ranunculus, and Deutzia).— E. L. GREENE (Leaflets **1**: 33–48. 1904), in continuing his studies of "Polygonaceous genera," has described 26 new species of Polygonum.— FINET and GAGNEPAIN (Bull. Soc. Bot. France **50**: 517–557. *pls. 16–17*. 1904) have begun a series of contribution to the flora of eastern Asia, the first dealing mostly with a synopsis of Clematis (73 spp.) and the second (*idem* 601–627. *pl. 19*) presenting a synopsis of Thalictrum (51 spp.).—EM. BOUDIER (Bull. Soc. Mycol France **20**: 19–22. *pl. 1*. 1904) has described a new genus (*Guilliermondia*) of Myriangiaceae, and PAUL VUILLEMIN (*idem* 26–33. *pl. 2*) a new genus (*Spinalia*) of Dispireae parasitic on Mucor.—OAKES AMES (Contrib. Ames Bot. Lab. 1) has published an account of the orchid flora of Southern Florida, including critical notes, a few novelties, and 12 plates.—E. D. MERRILL (Publ. 6. Bur. Gov't Labs. Depart. Interior, P. I.) has described some new or noteworthy Philippine plants, and has also discussed the American element in the Philippine flora.—N. L. BRITTON (Bull. Torr. Bot. Club **31**: 165–166. 1904) has described four new North American species of Betula. —WILLARD N. CLUTE (Fern Bull. **13**: 20–23. 1904) has described a new Equisetum from northern Illinois.—THEO. HOLM (Am. Jour. Sci. IV. **17**: 301–317. 1904), in his 21st "Studies in the Cyperaceae," has described 17 new species and 5 new varieties of Carex, and has discussed 10 noteworthy species. —ROBERT KELLER (Bot. Jahrb. **33**: 547–554. 1904) has described 12 new forms of Hypericum from eastern Asia.—SPENCER LE M. MOORE (Jour. Bot. **42**: 100–110. 1904), in describing Mons. A. Robert's Matto Grosso Plants, has described *Salpingacanthus* as a new genus of Acanthaceae (Ruellieae).—AGNES CHASE (Rhodora **6**: 65–71. *pls. 52–53*. 1904), in presenting the N. Am. allies of *Scirpus lacustris*, recognizes four species, one of which is new.—J. M. C.